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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,441	05/03/2001	Sandeep K. Singhal	6020.0100	7820

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MARCIA L. DOUBET
P.O. BOX 422859
KISSIMMEE, FL 34742-2859

EXAMINER

DAO, MINH D

ART UNIT	PAPER NUMBER
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2682

6

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/848,441

Applicant(s)

SINGHAL ET AL.

Examiner

MINH D DAO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-32 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 3 recites the limitation "the adapters" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1,2,4-18,25-27,29-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Stewart (US Patent 6,452,498).

Regarding claim 1, Stewart teaches a system for delivering location-based services (See fig.1, col. 3, lines 55-67) to mobile clients (See fig.1, item 5) in a building structure

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(col. 5, lines 34-42) using short-range wireless technology (Col. 3, lines 65-67; col. 4, lines 1-8), comprising: a plurality of short-range wireless communication devices (item 5), each of the mobile clients equipped with at least one of the devices; a plurality of short range wireless access points (items 10) adapted for communicating with the mobile clients via the short-range wireless communication devices (See fig. 1, col. 3, lines 20-45); a location registry having means for tracking the location of the mobile clients (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37); access point software (col. 5, lines 19-28) for enabling the communication of information to the location registry; and one or more location aware service proxies (See fig. 1, item 20, Information Provider).

Regarding claim 2, Stewart teaches a system as recited in claim 1, wherein the access point software is maintained on an adapter coupled to the wireless access points (col. 5, lines 19-28).

Regarding claim 4, Stewart teaches a system as recited in claim 1, wherein the wireless access points include means for detecting the identity of a system user (col. 4, lines 1-8).

Regarding claim 5, Stewart teaches a system as recited in claim 1, wherein the wireless access points have means for detecting one or more mobile client characteristics (col. 4, lines 1-8).

Regarding claim 6, Stewart teaches a system as recited in claim 1, wherein the location registry further comprises: means for receiving notification information from the wireless access points; and means for maintaining a table listing of wireless access points associated with each of the mobile clients (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 7, Stewart teaches system as recited in claim 1, wherein the location aware service proxies each have means for intercepting client requests and means for generating responses incorporating location sensitive information (col. 6, lines 60-67).

Regarding claim 8, Stewart teaches a system as recited in claim 1, wherein the one or more location aware service proxies comprise at least one of: an HTTP proxy, a WSP proxy, a DNS proxy, a message proxy and a directory proxy (col. 6, lines 49-54).

Regarding claim 9, Stewart teaches a system as recited in claim 8 wherein the DNS proxy includes means for determining an IP address for a requested host name, the host name corresponding to a location-based service corresponding to a client location (col. 6, lines 49-54).

Regarding claim 10, Stewart teaches a system as recited in claim 8 wherein the message proxy includes means for filtering a list of current messages requested from the message server based upon client location (col. 6, lines 49-59).

Regarding claim 11, Stewart teaches a system as recited in claim 1, further comprising a protocol proxy, the protocol proxy annotating content received from the service proxy (col. 6, lines 20-37).

Regarding claim 12, Stewart teaches a system as recited in claim 1, wherein the location registry further comprises a query interface adapted for interfacing with the protocol proxy to give location information about a mobile client (col. 6, lines 20-37).

Regarding claim 13, Stewart teaches a system as recited in claim 1 wherein the location aware service proxy further comprises a protocol proxy (col. 6, lines 20-37).

Regarding claim 14, the claim has the same limitations as in claim 1, therefore is rejected for the same reason set forth in claim 1.

Regarding claim 15, Stewart teaches a method as recited in claim 14, wherein the step of communicating further comprises communicating information from one more adapters coupled to the access points to a location registry (See fig.1, item 15); (Col. 3, lines 65-67; col. 4, lines 1-8).

Regarding claim 16, Stewart teaches a method as recited in claim 14, further comprising the step of continuously monitoring traffic generated by the mobile clients via the access point software (col. 5, lines 11-28).

Regarding claim 17, Stewart teaches a method as recited in claim 14, further comprising the step of transmitting a register notification from a wireless access point to the location registry upon detecting a new mobile client address on the wireless access point (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 18, Stewart teaches a method as recited in claim 14, further comprising the step of transmitting a reverse registration notification from a wireless access point to the location registry upon detecting a mobile client departure from the wireless access point (col. 7, lines 31-42).

Regarding claim 25, Stewart teaches a method as recited in claim 14, further comprising the step of transmitting notification information from the wireless access points to the location registry, the location registry maintaining a table listing of current access points associated with each of the mobile clients (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 26, Stewart teaches a method as recited in claim 14, further comprising the step of enhancing the functionality of an access point to identify a system user or a mobile client characteristic (col. 4, lines 1-8).

Regarding claim 27, Stewart teaches a method as recited in claim 17, further comprising the step of adding an access point ID to a location list for a particular client ID upon receiving a registry notification (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 29, Stewart teaches method as recited in claim 14, further comprising the steps of: intercepting client requests via the location aware service proxies; and generating responses incorporating location sensitive information via the location aware service proxies (col. 6, lines 60-67).

Regarding claim 30, Stewart teaches a method as recited in claim 14 wherein the location aware service proxy further comprises a DNS proxy, the method further comprising the step of determining an IP address for a requested host name corresponding to a location-based service based upon a client location (col. 6, lines 49-54).

Regarding claim 31, Stewart teaches a method as recited in claim 14 wherein the location aware service proxy further comprises a message proxy, the method further comprising the step of filtering a list of current messages received from a message server, based upon a client location, via the message proxy (col. 6, lines 49-59).

Regarding claim 32, Stewart teaches a method as recited in claim 14, further comprising the step of annotating content received by the protocol from the location aware service proxy (col. 6, lines 20-37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US Patent 6,452,498).

Regarding claims 22-24, cited reference Stewart fails to teach a use of the Medium Access Control (MAC) address. However, MAC is a well known technology in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide MAC to the teaching of Stewart in order to improve an efficiency of transmission.

3. Claims 19,20 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US Patent 6,452,498) and further in view of Falco et al. (US 6,439,539).

Regarding claim 19, Stewart teaches the limitations of claim 16. However, Stewart fails to teach a method as recited in claim 16, further comprising the step of monitoring the quantity of time lapsed since the previous detection of traffic for each of the active mobile clients. Falco, in an analogous art, teaches a step of monitoring the quantity of time lapsed since the previous detection of traffic for each of an active mobile client (col. 8, lines 51-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the teaching of Falco to Stewart in order to

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synchronize a remote base station with a serving base station as taught by Falco in abstract of the invention.

Regarding claim 20, the combination of the teachings of Stewart and Falco teaches method as recited in claim 19, further comprising the step of defining a mobile client departure from a wireless access point based upon the time lapse (Reference Stewart, col. 7, lines 31-42).

Regarding claim 28, the combination of the teachings of Stewart and Falco teaches a method as recited in claim 17, further comprising the step of removing an access point ID from the location list for a particular client ID upon receiving a reverse registry notification (Reference Stewart, col. 7, lines 31-42).

Allowable Subject Matter

4. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Regarding claim 21, cited reference Stewart teaches the limitations of claim 14. However, Stewart fails to teach that the method as recited in claim 14, further comprising the step of transmitting register notifications from a wireless access point to the location registry at timed intervals, the register notification including a list of all mobile clients actively communicating with the access point, the location registry defining a mobile client address as unregistered where the client is not included on the active mobile client list. As specified in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Richton (US 6,650,902) discloses Method And Apparatus For Wireless Telecommunications System That Provides Location-Based Information Delivery To A Wireless Mobile Unit.
- b. Method And System For Connecting A mobile Terminal To A Database.

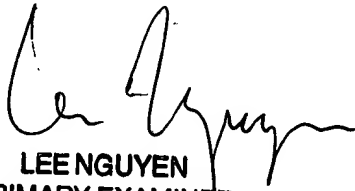
- c. Kuwahara et al. (6,389,288) discloses Mobile Communication Terminal Capable Of Executing Location-Related Services.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D DAO whose telephone number is 703-305-5589. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VIVIAN C CHIN can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Minh Dao
Examiner
Art Unit 2682
March 10, 2004 *MD*


LEE NGUYEN
PRIMARY EXAMINER